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EXAMINER

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ART UNIT PAPER NUMBER

2153

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/714,158

Applicant(s)

SINCLAIR ET AL.

Examiner

La Juania N. Mouzon

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to Applicant's Amendment filed 7/2/2007.

Claims 1-25 are pending.

Drawings

2. Applicant's amendments to the drawings filed on 7/2/2007, have been fully considered and are persuasive. The objections to the specification have has been withdrawn.

Specification

3. Applicant's amendments to the specification filed on 7/2/2007, have been fully considered and are persuasive. The objections to the specification have has been withdrawn.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Baekelmans et al. (US 7,080,141).

6. In regards to claims 1 and 22 Baekelmans et al. discloses, a method and a computer-readable storage medium for rule-based network management, the method comprising the computer-implemented and a computer-readable storage medium carrying one or more sequences of instructions for rule-based network management, which instructions, when executed by one or more processors, cause the one or more processors to carry out the steps of:

a. defining and storing a set of rules in one or more Rule-Based Markup Language ("RBML") documents, wherein the one or more RBML documents include one or more tags defining one or more rule elements, and wherein the set of rules includes **(Col. 7 line(s) 42-53 and Col. 9 line(s) 1-7, teach defining and storing a set of rules using a standardized schema according to extensible markup language (XML) based definitions, which is a form of a Rule-Based Markup Language, including one or more tags defining one or more rule elements.)** :

i. a symptom-event rule that identifies as a symptom a particular event occurring within the network **(Col. 9 line(s) 8-16, teach that the customer database includes symptom-event rules that identifies network events with particular states or state transactions.)**; and

- ii. a problem-diagnosis rule that defines a problem within the network as a correlation between one or more symptoms **(Col. 9 line(s) 29-35, teach a problem-diagnosis rule is based on a collection of symptoms that defines a problem.);**
 - b. collecting and storing symptom-related data about one or more symptoms, wherein collecting and storing the symptom-related data includes monitoring the network for one or more network events identified in the symptom-event rule **(Col. 5 line(s) 29-63, teach collecting and storing the device symptoms, while monitoring the network events identified in the symptom-event rule.);** and
 - c. detecting a problem within the network **(Col. 11 line(s) 13-16, teaches that a problem is detected with a device within the network.);** wherein detecting the problem includes applying the problem-diagnosis rule to the symptom-related **(Col 12 line(s) 20-22, teach after detecting the problem the problem is diagnosed based off of the symptoms and the solution if applied, from the problem-diagnosis rule.);**
- 7. In regards to claims 2 and 23 Baekelmans et al. discloses, reviewing the set of rules to identify and resolve a conflict between two or more rules in the set **(Col. 9 line(s) 63-67, It is inherent if a user is able of creating and updating, then a user is capable of reviewing the set of rules to identify and resolve conflicts between two**

or more rules in a set.).

8. In regards to claims 3 and 24 Baekelmans et al. discloses, storing the one or more RBML documents in a rule repository, wherein the rule repository includes one or more directories containing RBML documents **(Col. 7 line(s) 42-53, teach the troubleshooting database storing XML/RBML documents, whereas the database includes one or more directories containing said documents.).**

9. In regards to claims 4 and 25 Baekelmans et al. discloses, wherein a RBML document storing the problem-diagnosis rule includes: a problem-definition tag describing a problem; and a correlation tag identifying the correlation between one or more symptoms, wherein the one or more symptoms are defined in one or more symptom tags that include one or more pre-defined indicators associated with the one or more symptoms **(Col. 12 line(s) 40-47, teach whereas each database entry has sufficient XML based identifier tags that specifies relevant attributes, therefore it is inherent that a problem-definition and correlation tag could have been included. To either define a problem or identify correlation between the symptoms since Baekelmans et al. teach correlation).**

10. In regards to claims 5, 12, 26, and 33 Baekelmans et al. discloses, wherein the step of detecting a problem within the network further comprises the steps of:

- d. comparing the symptom-related data to the one or more pre-defined indicators associated with a particular symptom to determine whether the particular symptom exists in the symptom-related data **(Col. 11 line(s) 40-51 and 65-67, teaches executing a query to compare the symptoms to one or more states attributes (predefined indicators) associated with the symptom to determine if that particular symptom exist as a symptom-related data.);**
- e. repeating the step of comparing the symptom-related data for all symptoms identified in the correlation tag of the RBML document storing the problem-diagnosis rule **(Col. 11 line(s) 40-51 and 66-67, it is inherent that this step is repeated for all the symptoms. Furthermore, repeated for all the symptoms in the correlation tag.);** and
- f. only if all symptoms identified in the correlation tag exist, determining that the problem identified in the problem-definition tag is detected **(Col. 12 line(s) 11-16, teach that the when all the symptoms identified exist the problem is detected in a problem-definition tag.);**

11. In regards to claims 6 and 27 Baekelmans et al. discloses, wherein a RBML document storing the symptom-event rule includes: an event tag identifying the particular event occurring on the network **(Col. 12 line(s) 40-47, teach that there is an events class tag. It is inherent that this events class tag identifies the particular events occurring on the network.);** and a symptom tag identifying a symptom as a generalized abstraction of the particular event **(Col. 12 line(s) 40-47, teach whereas**

each database entry has sufficient XML based identifier tags that specifies relevant attributes, therefore it is inherent to include a symptom tag given that the rules are based off of problems and symptoms.).

12. In regards to claims 7, 13, 28, and 34 Baekelmans et al. discloses, wherein the RBML document storing the symptom-event rule further includes: a profile tag identifying a particular network device (**Col. 12 line(s) 40-47, teach that there is an network device class tag. It is inherent that this network device tag identifies the particular network device.);** and a command tag identifying a data-collection command, wherein the data-collection command, when executed on the particular network device, returns symptom-related data associated with the particular network device (**Col. 6 line(s) 29-45, teach a command tag for executing a command to retrieve network device symptom-related data.).**

13. In regards to claims 8 and 29 Baekelmans et al. discloses, the set of rules further includes a problem-correction rule defining one or more corrective actions capable of correcting the problem within the network (**Col. 12 line(s) 16-19, teach sending the results (problem-correction rule) that includes the corrective actions capable of correcting the problem within the network.);** and the method further comprises the step of recommending to a user one or more corrective actions defined in a RBML document storing the problem-correction rule (**Col. 12 line(s) 16-19, teach sending the action to the end user as a recommendation of actions to resolve the problem.).**

14. In regards to claims 9 and 30 Baekelmans et al. discloses, the step of applying to a network device, without user intervention, one or more corrective actions defined in the problem-correction rule (**Col. 12 line(s) 20-22 teach implementing the corrective actions, as defined in the problem-correction rule, to the network device, without user interventions.**).

15. In regards to claims 10 and 31 Baekelmans et al. discloses, the network is a first network in a plurality of networks (**Fig. 1 #17 teach the Internet which is a plurality of networks, as defined by Microsoft Dictionary 5th Ed.**); and the method further comprises the steps of:

g. receiving a request from a user to employ a particular rule in managing a second network, separate from the first network (**Col. 12 line(s) 16-19, it is inherent that a request can be received to deploy a rule to a second network, separate from the first network.**); and distributing to a device on the second network the one or more RBML documents storing the particular rule (**Col. 12 line(s) 16-19, it is inherent that once the user received the notification that the request would have been generated, by deploying the rule to the device on the second network.**).

16. In regards to claims 11 and 32 Baekelmans et al. discloses, a method and a computer-readable storage medium for defining a Rule-Based Markup Language

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("RBML") to describe a set of rules for managing a network, the method comprising the computer-implemented and a computer-readable storage medium carrying one or more sequences of instructions for defining a Rule-Based Markup Language ("RBML") to describe a set of rules for managing a network, which instructions, when executed by one or more processors, cause the one or more processors to carry out the steps of:

h. creating one or more RBML documents for storing the set of rules, wherein the one or more RBML documents include one or more tags defining one or more rule elements **(Col. 7 line(s) 42-53 and Col. 9 line(s) 1-7, teach defining and storing a set of rules using a standardized schema according to extensible markup language (XML) based definitions, which is a form of a Rule-Based Markup Language, including one or more tags defining one or more rule elements.)**, and wherein:

iii. a RBML document storing a symptom-event rule from the set of rules includes **(Col. 9 line(s) 8-16, teach that the customer database includes symptom-event rules from a set of rules.)**:

(1) an event tag identifying a particular event occurring on the network **(Col. 12 line(s) 40-47, teach that there is an events class tag. It is inherent that this events class tag identifies the particular events occurring on the network.)**; and

- (2) a symptom tag identifying a symptom as a generalized abstraction of the particular event (**Col. 12 line(s) 40-47, teach whereas each database entry has sufficient XML based identifier tags that specifies relevant attributes, therefore it is inherent to include a symptom tag given that the rules are based off of problems and symptoms.); and**
- iv. a RBML document storing a problem-diagnosis rule from the set of rules includes (**Col. 9 line(s) 29-35, teach a problem-diagnosis rule is based on a collection of other rules (symptoms).):**
- (3) a problem-definition tag describing a problem; and a correlation tag identifying a correlation between one or more symptoms, wherein the one or more symptoms are defined in one or more symptom tags that include one or more pre-defined indicators associated with the one or more symptoms (**Col. 12 line(s) 40-47, teach whereas each database entry has sufficient XML based identifier tags that specifies relevant attributes, therefore it is inherent that a problem-definition and correlation tag could have been included. To either define a problem or identify correlation between the symptoms since Baekelmans et al. teach correlation); and**

i. generating, from information stored in one or more tags of the one or more RBML documents, one or more sequences of instructions, which instructions, when executed by one or more processors, cause the one or more processors to carry out the steps of **(Fig. 4, teaches a generating information from the stored documents that produces a series of steps that are executed by one or more processors.):**

v. collecting and storing symptom-related data about one or more symptoms, wherein collecting and storing the symptom-related data includes monitoring the network for one or more network events identified in the symptom-event rule **(Col. 5 line(s) 29-63, teach collecting and storing the device symptoms, while monitoring the network events identified in the symptom-event rule.);** and

vi. detecting a problem within the network **(Col. 11 line(s) 13-16, teaches that a problem is detected with a device within the network.),** wherein detecting the problem includes applying the problem-diagnosis rule to the symptom-related data **(Col 12 line(s) 20-22, teach after detecting the problem the problem is diagnosed based off of the symptoms and the solution if applied, from the problem-diagnosis rule.).**

17. In regards to claims 14 and 35 Baekelmans et al. discloses, the step of creating one or more RBML documents further includes creating a RBML document for storing a

problem-correction rule defining one or more corrective actions capable of correcting the problem within the network (**Col. 12 line(s) 20-22, teach creating a document, storing a problem-correction rule, that defines one or more corrective actions capable of correcting the problem within the network.**); and the step of generating instructions includes generating one or more sequences of instructions, which instructions, when executed by the one or more processors, cause the one or more processors to carry out the step of recommending to a user the one or more corrective actions defined in the RBML document storing the problem-correction rule (**Fig. 4, teach generating instructions to be executed by one or more processors to send recommendations to the end user of corrective actions to correct the problem.**).

18. In regards to claim 15 Baekelmans et al. discloses, an apparatus for rule-based network management, comprising:

j. a rule editor for creating and storing, in one or more Rule-Based Markup Language ("RBML") documents containing one or more tags, a set of rules employed in managing the network (**Col. 9 line(s) 63-67, teaches that a rule editor exist for creating new and updating RMBL documents as disclosed by a technical support engineer being able to update the database with new problem/resolution information.**), wherein the set of rules includes:

vii. a symptom-event rule that identifies as a symptom a particular event occurring within the network (**Col. 9 line(s) 8-16, teach that the customer database includes symptom-event rules that identifies network events with particular states or state transactions.**); and

- viii. a problem-diagnosis rule that defines a problem within the network as a correlation between one or more symptoms (**Col. 9 line(s) 29-35, teach a problem-diagnosis rule is based on a collection of symptoms that defines a problem.**);
- k. one or more processors (**Fig. 1 #24, teach one or more processor.**);
- l. a diagnosis engine including one or more stored sequences of instructions which, when executed by the one or more processors, cause the one or more processors to carry out the steps of (**Col. 7 line(s) 54-61, teach a rules based troubleshooting system (diagnosis engine) that has stored sequences of instructions that are executed by a processor.**);
- ix. collecting and storing symptom-related data about one or more symptoms, wherein collecting and storing the symptom-related data includes monitoring the network for one or more network events identified in the symptom-event rule (**Col. 5 line(s) 29-63, teach collecting and storing the device symptoms, while monitoring the network events identified in the symptom-event rule.**); and
- x. detecting a problem within the network (**Col. 11 line(s) 13-16, teaches that a problem is detected with a device within the network.**), wherein detecting the problem includes applying the problem-diagnosis rule to the symptom-related data (**Col 12 line(s) 20-22, teach after detecting the problem the problem is diagnosed based off of the**

symptoms and the solution if applied, from the problem-diagnosis rule.).

19. In regards to claim 16 Baekelmans et al. discloses, wherein the rule editor is capable of providing to a user means for reviewing the set of rules to identify and resolve a conflict between two or more rules in the set **(Col. 9 line(s) 63-67, It is inherent if a user is able of creating and updating rules using the rule editor, then a user is capable of reviewing the set of rules to identify and resolve conflicts between two or more rules in a set.).**

20. In regards to claim 17 Baekelmans et al. discloses, the problem-diagnosis rule defining the correlation between one or more symptoms includes one or more pre-defined indicators associated with the one or more symptoms **(Col. 9 line(s) 29-35, teach a problem-diagnosis rule is based on a collection of symptoms that defines a problem.);** and the diagnosis engine instructions for carrying out the step of detecting a problem within the network further include instructions **(Col. 7 line(s) 54-61, teach a rules based troubleshooting system (diagnosis engine) that has stored sequences of instructions that are executed by a processor.)** for carrying out the steps of:

- m. comparing the symptom-related data to the one or more pre-defined indicators associated with a particular symptom to determine whether the particular symptom exists in the symptom-related data **(Col. 11 line(s) 40-51 and 65-67, teaches executing a query to compare the symptoms to one or more**

states attributes (predefined indicators) associated with the symptom to determine if that particular symptom exist as a symptom-related data.);

n. repeating the step of comparing the symptom-related data for all symptoms identified in the correlation tag of the RBML document storing the problem-diagnosis rule (**Col. 11 line(s) 40-51 and 66-67, it is inherent that this step is repeated for all the symptoms. Furthermore, repeated for all the symptoms in the correlation tag.); and**

o. only if all symptoms identified in the correlation tag exist, determining that the problem identified in the problem-definition tag is detected (**Col. 12 line(s) 11-16, teach that the when all the symptoms identified exist the problem is detected in a problem-definition tag.);**

21. In regards to claim 18 Baekelmans et al. discloses, wherein the symptom-event rule further includes: information identifying a particular network device (**Col. 9 line(s) 9-11, teach that the symptom-event rule includes information about a particular network device by associating its prescribed states or state transactions.); and a data-collection command, wherein the data-collection command, when executed on the particular network device, returns symptom-related data associated with the particular network device (Col. 9 line(s) 16-19, teach that a trapplet executes a command that retrieves symptom information from a particular network device. It is inherent that this command for this particular device is included within the symptom-event rule.);**

22. In regards to claim 19 Baekelmans et al. discloses, the set of rules further includes a problem-correction rule defining one or more corrective actions capable of correcting the problem within the network (**Col. 12 line(s) 16-19, teach sending the results (problem-correction rule) that includes the corrective actions capable of correcting the problem within the network.**); and the diagnosis engine further includes instructions which, when executed by the one or more processors, cause the one or more processors to carry out the step of recommending to a user one or more corrective actions defined in the problem correction rule (**Fig. 4, teach generating instructions to be executed by one or more processors to send recommendations to the end user of corrective actions to correct the problem.**).

23. In regards to claim 20 Baekelmans et al. discloses, wherein the diagnosis engine further includes instructions which, when executed by the one or more processors, cause the one or more processors to carry out the step of applying to a network device, without user intervention, one or more corrective actions defined in the problem-correction rule (**Col. 12 line(s) 20-22 teach the diagnosis engine executing the corrective actions, as defined in the problem-correction rule, to the network device, without user interventions.**).

24. In regards to claim 21 Baekelmans et al. discloses, the network is a first network in a plurality of networks (**Fig. 1 #17 teach the Internet which is a plurality of networks, as defined by Microsoft Dictionary 5th Ed.**); and the apparatus further

includes a rule broker, wherein the rule broker receives a request from a user to apply a particular rule in managing a second network, separate from the first network (**Col. 12 line(s) 16-19, it is inherent that a request can be received, by a rule broker, to deploy a rule to a second network, separate from the first network.**), and distributes to a device on the second network the one or more RBML documents storing the particular rule (**Col. 12 line(s) 16-19, it is inherent that once the user received the notification that the request would have been generated, by deploying the rule to the device on the second network.**) .

Response to Arguments

25. Applicant's arguments with respect to claims 1-35 have been considered but are moot in view of the new ground(s) of rejection.

26. Applicant's arguments, see pg. 19-20, filed 7/2/2007, with respect to the 101 rejections have been fully considered and are persuasive. The rejection of claims 22-35 has been withdrawn.

27. Applicant's arguments, see pg. 20, filed 7/2/2007, with respect to claim 11 objection have been fully considered and are persuasive. The objection of claim 11 has been withdrawn.

Conclusion


28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Faigon et al. (US 6,006,016) network fault correlation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to La Juania N. Mouzon whose telephone number is 571-270-3045. The examiner can normally be reached on Monday - Friday 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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